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AIR CORPS NEWS LETTER

ISSUED BY THE OFFICE OF THE CHIEF OF THE AIR CORPS
WAR DEPARTMENT WASHINGTON, D.C.

MAY 15,1935

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Information Division, Air Corps — May 15, 1935 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

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LONG-RANGE AIRPLANES MOST FLEXIBLE DEFENSE

The long-range airplane will form the future basic element of this country's air force and give the United States its most flexible defense against any challenge from the ocean declared Brig. General Frank M. Andrews, Chief of the General Headquarters Air Force, at the annual aerial membership roundup dinner of the Indiana Department of the American Legion at Indianapolis on the evening of May 1st, last.

General Andrews and scores of other prominent figures in the aeronautical world and civic and government leaders were guests of Frank N. Belgrano, Jr., National Legion Commander, at the Indianapolis Athletic Club.

Stating that the responsible authorities of the War Department are fully alive to the importance of military aviation and to the requirements for the organization, equipment and control of the air force, General Andrews briefly outlined the measures which were instituted by the War Department to effect the creation of the G.H.Q. Air Force, following the approval by the Secretary of War of the report of the Special War Department Committee headed by the Hon. Newton D. Baker. The program contemplated eventually a force of 2320 planes for all purposes, including combat, observation, training, cargo and transport, the GHQ Air Force to be equipped with 980 planes, made up of all air combat units in the continental limits of the United States, in one command directly under the Chief of Staff in time of peace, and of the commander of the Field Forces in war.

Four field armies, with the GHQ Air Force, will constitute the main combat elements of our war forces. The four armies must of necessity be skeletonized in peace and brought up to full strength as quickly as possible when mobilization is ordered.

"The Air Force cannot be improvised after war is imminent," General Andrews stated. "It takes years to build bases and airplanes and to train personnel. The War Department has, therefore, adopted the policy of maintaining the Air Force at all times in a state of readiness for war.

In any war between modern powers an Air Force phase will precede the contact of the ground forces. The outcome of this phase will be very important. The Air Force phase will consist largely of independent air operations, i.e., operations of the GHQ Air Force acting alone or as the principal force in the performance of the mission assigned by the Commander-in-Chief of the Field Forces. These independent air operations will normally be beyond the sphere of influence of the surface forces of the ground or of the sea. They comprise such operations as attack on enemy aviation and aviation bases; attack on hostile naval forces; on choke points in lines of communication, such as railway and highway bridges, canal locks, port facilities; attack on troop concentrations and on war industrial activities, etc.

Of course, if an enemy Air Force should be able to establish itself on bases or has available bases from which it can operate against the United States, it will attempt to carry out the same class of missions, particularly the attack of refineries and factories engaged in the production of munitions, and the attack of power plants and other utilities.

It can be readily seen that the most important operation for the United States Army Air Force is to defeat the enemy aviation. This is ordinarily best accomplished by attacking enemy air bases. One destroys an obnoxious flying pest through the destruction of its breeding or roosting places. Without bases an air force cannot operate.

Our GHQ Air Force, to carry out its function, must also have prepared bases. The more bases, the more flexible the operations, but as a minimum requirement there should be base facilities in every strategic area.

The Wilcox Bill, which has been favorably reported out of the House Military Affairs Committee, provides these air bases and certain other necessary auxiliary establishments. It has the indorsement of the War Department and its enactment into law would add greatly to the effectiveness of the air defenses of the United States in war, and facilitates air training in peace. It deserves universal support."

Outlining briefly the functions of Bombardment, Pursuit and Attack Aviation, General Andrews stated that these branches of aviation must have information upon which to base their operations. Accordingly there are provided a few squadrons of long-range observation, whose duty it

V-6787, A.C.

is to locate and check up on likely targets for the bombardment and attack.

Certain supplies and key personnel ... must be quickly transported to operating air units as required. Cargo and transport airplanes look after some of the more urgent supply and personnel transport problems.

Asserting that the Army air defense organization which the War Department is building is far from complete, General Andrews goes on to say that time and money and hard work are necessary before the United States will have an effective air defense. At the present time it is only getting under way.

"For example," he said, "the GHQ Air Force has assigned to it about 450 airplanes of all types, less than half its 980 set up in the program. Of the 450, only about 176 are modern and suitable.

The shortage in commissioned personnel presents another serious problem. The GHQ Air Force alone will require when completely equipped with airplanes about 1900 trained pilots, navigators and observers. Today there are available to GHQ units for these duties about 500 Regular officers, Reserve officers and Flying Cadets. Similar conditions exist in other Air Corps activities. Base facilities are inadequate and more are needed.

However, there are bright spots in the outlook - it is not all dark. During the next 18 months for instance, a considerable number of modern combat aircraft will be delivered to the Air Corps equal or superior to anything in the world. In the year following that, still more, but it should be noted that these deliveries are sufficient to provide replacements only for worn out and useless airplanes. They are not sufficient to build up to the number of aircraft required by the approved program.

This program was recommended by the Baker Committee as a minimum for air defense purposes. It should be met in a reasonable length of time to provide adequate National security. For Army aviation, when it is completely organized and equipped will afford a defense weapon of primary importance for the prevention of any oversea invasion of the United States or its possessions.

As time goes on, the increasing range of this extraordinary form of easily controlled fire power will dictate new air defense frontiers and larger spheres of influence for military aviation. Our efforts, therefore, should be to extend the radius of our aircraft to the effective maximum technically practicable, not for the purpose of making the airplane a vehicle of aggression, but rather to subject an aggressor to this form of our defense as far from our homes as possible, and to realize to the fullest the defensive capabilities of land-based military aviation.

We are not an aggressor nation. Our national policy of defense is well known and is responsible in no small degree for the mutual respect and confidence existing among the nations of North America. Unfortunately for world peace, reverse conditions exist in Europe and Asia. I think you will all agree with me that the aims and ideals of our armed forces, including military aviation, fit harmoniously into the social and economic will of the nation for defense and toward the prevention of war. But notwithstanding this and the fortunate situation existing in our continent, experience has shown us that we may easily become involved in world conflicts. We have no assurance that in our next war the battle ground will be on foreign soil. It is for every contingency that we must prepare.

Commercial and military development of the air and science of aviation in the world has advanced at a rapid rate, and now foreshadows the early production of heavy aircraft, with ranges of several thousand miles and with large, useful loads. For military aircraft, armament, ammunition, high explosives and authorized chemicals constitute this load. Range will be convertible into armament and vice versa. With sufficient bases, weather, oceans, and other natural obstacles form no effective barriers to the operation of these long-range aircraft. Their destructive potentiality is tremendous. A few such planes could carry in one load all the weight of explosives that were dropped on London during the World War.

Is it any wonder that the nations of Europe, with their nationalistic rivalries and political conflicts, live in constant fear of air raids, and seek protection by building up their aviation arms and by forming air alliances? These nations, as well as our own, realize that the only adequate answer to air attacks is the airplane.

It is the long-range airplane with a radius extending several thousand miles in any direction that, I believe, will form the future basic element of our air force and that will give to the United States its most flexible defense against any challenge from over the oceans.

The airplane has greatly increased the destructive power of military arms to the extent that a physical conflict between great nations might well prove to be so devastating that its prolonged prosecution would be a major catastrophe and, therefore, it is aviation perhaps more than any other power, which I believe will tend to discourage another World War.

I think that the continued development of a vehicle of mechanical transportation and military power of such possibil-

ities as the airplane, will, in all probability, prove revolutionary in its influence on political alliances and combinations throughout the world, and on international trade policies and treaties.

I am convinced, therefore, that the development of this new instrument of peace will continue to have an increasing influence upon our National security and commerce, and consequently upon the security and welfare of every individual.

The program of 2320 airplanes recommended by the Baker Committee and by the War Department is certainly a reasonable objective for the Army Air Corps, and is an insurance policy against warfare upon which I believe our people would be glad to pay the premiums."

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ANOTHER ERRAND OF MERCY IN PANAMA

Suffering a serious throat ailment, Rosendo Jurado, Panamanian lawmaker and political leader in the province of Bocas, was rushed from Bocas del Toro to Panama City in an Army amphibian on April 22nd last. He was taken to the Santo Tomas Hospital shortly after 4:00 o'clock and was scheduled to undergo an operation immediately. On the morning of April 22nd, Enrique A. Jimenez, Secretary of the Department of Finance, received a telegram from Governor Selles of Bocas, as follows:

"Jurado gravely ill. Try to send hydroplane to rush him to Panama. President also advised today. Advise us of departure of plane and notify Dr. Brin."

An Army Amphibian, piloted by Major Willis R. Taylor, of France Field, who was accompanied by Captain Warren M. Scott and Lieut. Cecil Henry, left for Bocas del Toro in the morning and at 4:00 p.m. landed at Albrook Field, bearing the sick man. Mr. Jurado was transferred to an ambulance and rushed to the Santo Tomas Hospital. Dr. Bin examined him immediately and decided to operate at once. The plane was met at Albrook Field by Mr. Jimenez and Dr. Brin. The following letter was received from the American Minister to Panama by Major General H.B. Fiske, the Commanding General of the Panama Canal Department:

Legation of the
United States of America
Panama, April 23, 1935.

My dear General Fiske:

The Minister for Foreign Affairs today expressed deep appreciation for the use of the Army airplane yesterday in bringing Senor Rosendo Jurado to Panama from Bocas del Toro. Doctor Arosemena asked me to transmit his most appreciative thanks, and those of his Government, to you and to the officers of your command who were instrumental in this errand of mercy.

I am, my dear General Fiske,
Very sincerely yours,
(Sgd.) George T. Summerlin.

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WIDESPREAD AIR BOMBARDMENT CONTEMPLATED BY EUROPEAN POWERS

The Editor of the "Manchester Guardian Weekly" (England) writes in the April 12th issue an editorial "Wings Over Europe." An extract from this editorial, referring to European wars, is as follows:

"What part is the aeroplane likely to play in them? There are two views. One, to which General von Seecht has given his support, is that the primary objective of each air force would be to destroy that of the enemy. The other, of which an early protagonist was the late Italian General Douhet, is that air power should be employed directly against vital centers on enemy soil. The latter view is that held by almost every general staff in Europe, including our own. Mr. Laurent Eynac, the former French Air Minister, said in the Chamber last week that the war functions of the French Air Force would be both to 'disorganize the mobilization and concentration of enemy troops' and to 'demoralize the civilian population.' What European Air Ministry would deny that its object is the same?

Thanks to the aeroplane, the mobilization of enormous masses of fighting men will not be easy. Air power will strike at the very outset of a future campaign. Mobilization centers, ammunition depots, railway junctions, power stations, road, rail, and river bridges far behind the lines will be subjected to a continuous bombardment. Everything will be done to cut lines of supply and communication and keep them out. Anti-aircraft defense will doubtless be organized. But since in a war of 'areas' and not of 'fronts' the advantage is throughout with the attacking air force no large success by the defense can be expected.

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At Hamilton Field, Calif., there are over 40 vacancies in the grade of PRIVATE mainly in the 69th Service Squadron and Station Complement. Preference for these enlistments will be given those with clerical background, although a few fine mechanics can always be utilized.

THE SIGNIFICANCE OF THE GENERAL HEADQUARTERS AIR FORCE

In an article under the above subject in the May issue of U.S. AIR SERVICES, Lieut.-Colonel John D. Reardan, Air Corps, Chief of the Information Division, Office of the Chief of the Air Corps, after pointing out that the Army prior to March 1, 1935, had no unified command to operate all its combat units in the continental United States, stated that it has been clearly seen right along that the earliest mission a nation's air defense will be called upon to perform is that of meeting and combating an enemy's air attack. Air power has greatly lessened the time required by an aggressive nation to launch an effective attack. In the event the nation on the defensive has no well organized air power of its own, air attacks can be readily directed against its power plants, water supplies, bridges, tank farms and similar nerve centers of industrial and economic life.

Unless our country's air units for the conduct of a defense against such an air attack are under a unified command which trains them for their duties in war and prepares the plans whereby they will carry out such duties, little hope can be entertained for a successful resistance against these early air attacks. Therefore, the War Department effected the organization on March 1, 1935, of the GHQ Air Force, with headquarters at Langley Field, Va.

A great amount of detailed analytical study lies behind the action taken by the War Department in thus organizing the GHQ Air Force. It has long been evident that to be of maximum effect on the conduct of a war, air operations must be properly coordinated with the general strategy of the war; and that a unified air effort offers the greatest hope of securing important results. The Air Force mission therefore may be stated: "to conduct such air operations as will afford the greatest aid in winning the war." This implies that there must be prepared as a guide for these air operations an Air Force operating plan so designed as to correlate and coordinate the Air Force operations with the operations of other forces to secure objectives which will be decisive in winning a favorable decision in the war.

To secure an objective of this nature requires the employment of all the aviation necessary to accomplish the purpose under a single direction and in a coordinated operation. It requires for the air units participating, training in peace in acting together and in the doctrines and methods of their especial task.

On the other hand an air force of this character, trained and operated as indicated, is entirely suitable and adapted to perform missions designed to afford direct aid to ground troops, such as the operation of November 1, 1918, in the Meuse-Argonne battle, described by General Drum, as follows:-

> "In our attack in the Meuse-Argonne on November 1, 1918, the First Army decided to use all its air forces to help directly the ground battle. * * * Some 8 kilometers beyond the jump-off line there was German artillery in a large woods. This was bombarded by our aviation from the beginning of the attack in order to counteract or neutralize the enemy's artillery fire. The result of that attack is well known. The Second Division by noon of November 1 had gone clear through the center of the enemy, and after that time the enemy was in full retreat."

The use of all the aviation as a combined force against a single objective of sufficient importance to secure decisive results is a good example of one of the things sought to be accomplished by those responsible for the organization of the GHQ Air Force as it exists today. To secure the most effective results aviation of the four classes must be trained to operate in combination as a team, and the leaders of the larger units must be given experience in peace in discharging their duties.

One of the most important questions which the operation of the GHQ Air Force is expected to answer is: "What is the correct unit organization for squadrons and groups and for the troops which handle supporting ground services in the various permanent stations of these Air Force units?" The War Department directive to Brig. Gen. Frank M. Andrews, Air Corps, commanding the GHQ Air Force, stated that the New Tables of Organization for Air Corps Units, were to be tested by the Air Force for a period of one year, at the end of which a full report thereon was to be submitted.

The Commanding General, GHQ Air Force, has been given authority to make changes in these tables as deemed necessary, provided the total numbers of grades and ratings are not exceeded. He also has been directed to submit a preliminary report on these Tables of Organization on or before October 1, 1935. These tables provide for a greatly reduced personnel in the tactical squadrons and for larger "mobile service squadrons" designed to support in the field away from permanent Air Corps stations, the operations of the tactical units. All the personnel performing duties pertaining to the administration and operation of each permanent post are included in a single organization designated as the "station complement."

Another early problem to be solved by the GHQ Air Force is the determination of the needs in troops of other arms, airdromes, communications and supply for the support of intensive operations of the

Air Force in the field in case the country is attacked. A great amount of data upon this subject has been secured during Air Corps maneuvers held in the past. The Air Force staff now affords a continuing agency for the practical application of suggested methods in actual operations, and details may be expected to be worked out with a sureness which a theoretical treatment alone could not hope to approach.

After touching upon the experience expected to be afforded as a result of the policy recently inaugurated by the War Department of bestowing temporary increased rank to Air Corps officers commensurate with the duties they are performing, Lieut.-Col. Reardan went on to say that the creation of the GHQ Air Force fits in with the "Four Army Organization" evolved by General Douglas MacArthur and that when Air Force operating plans are completed they will provide for the employment of the GHQ Air Force, either in whole or in part, in any one of the four Army areas. The great mobility of the Air Force units will enable a prompt concentration of the whole Air Force at any location directed by the War Department or provided for in operating plans. The organization of the GHQ Air Force Headquarters provides a commander and staff constantly trained in the handling of such a combined air force and charged with a continuing study of new means and methods designed to make its operations more effective.

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GENERAL PRATT VISITS SELFRIDGE FIELD

The 27th Pursuit Squadron was recently accorded the signal honor of escorting General Henry C. Pratt. Commander of the Second Wing, to Selfridge Field, upon his inspection tour of Air Corps fields within that Wing. Early in the afternoon, all available P-26 airplanes were turned over to the 27th Squadron, and this winged armada of 15 airplanes took the air under the command of Major James E. Parker.

Breaking up into search formation, the Squadron patrolled the area eastward toward Buffalo. Finally, an O-38 appeared on the horizon. Quickly assemblying the unit by radio, Major Parker ordered the unit to fly escort until Selfridge Field was reached. Upon arriving over the field, the unit dived on the field, announcing the arrival of the distinguished guest. General Pratt was particularly impressed by the ease with which the Squadron spotted his O-38 and made the statement that Observation planes in the next war would have to be extremely alert to avoid becoming "Cold Turkey" for enemy Pursuit.

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CRITICISM OF MULTIPLACE COMBAT PLANE

Pierre Faure, one of the regular air writers on the staff of PARIS SOIR, in a recent article criticizes the use of multiplace combat planes on which the French air doctrine is based at the present time. He says:

"The French General Staff has ordered its air materiel with an idea in mind which can be summarized as follows: let us build planes of sufficient useful load and of sufficient speed to be fit for various missions: day and night bombardment, protection, long range reconnaissance, etc.

This type of plane - the multiplace combat plane - has been studied and built by a certain number of manufacturers and we saw at the last Air Show, Breguet, Potez and Bloch types constructed under that program.

What are we to think of the "all purpose" plane? Is it interesting?

The programs which led to these combat planes, by reason of the various missions of these planes, have called for a complete armament, a large personnel, and numerous accessories. The manufacturers have built planes with complex installations, which are heavy and finally not sufficiently fit for certain of the most important missions which they were, originally, to discharge.

If a plane carries three scarf mounts, it requires 3 men to serve them, and if this plane is to be able to attack and to defend itself, this leads to a formula with a very small margin for the useful load. So that it was learned by experience that these multiplace combat planes are insufficient for long range night bombardment.

The result is that the most important mission of a "retaliation" plane - night bombardment - cannot be satisfactorily performed by the multiplace combat plane, in which a lot of confidence was placed.

Combat is one thing, and bombardment another.

A plane specialized in night bombing does not need an important defensive armament. Personally, I believe that retaliation planes would gain by not being armed at all. It is impossible to do anything. A plane which has to travel far must carry as heavy a bomb load as possible and must neglect its defensive means, otherwise its useful load diminishes rapidly.

In case of an attack by enemy planes, the crew will have to use parachutes if the situation warrants it. But this would rarely happen, judging from what we know of night bombardment, as in most cases retaliation planes will reach their objectives without having to use their defensive armament. It would seem wise, in my opinion, to build heavy carriers like the Farman 221 and the Bernard retaliation plane, moderately armed but

capable of fulfilling their mission under good conditions.

To adopt "all purpose" planes is to risk never having the only planes which are really useful at the present time: retaliation planes. For France has none of these and there is nothing which permits us to believe that she will have any in the near future. That is where the difficulty lies.

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JUNIOR BIRDMEN VISIT SELFRIDGE FIELD

Seventeen members of the Junior Birdmen of America visited Selfridge Field, Mich., on April 25th, as guests of Lt.-Col. Ralph Royce, Post and Group Commander. These air-minded young men, ranging in age from 16 to 21 years, had come to Detroit from widely scattered cities of the United States to compete in the National Finals of the Junior Birdmen's Model plane-building contest. All were district champions in the art of constructing miniature gliders, ROG and tractor flying models.

While the birdmen were visiting the field, the 27th Pursuit Squadron staged an air show for their benefit. Starting the afternoon's entertainment, Capt. Karl G.E. Gimmler and Lieut. Joe Irvine staged a combat directly over the field. An acrobatic team composed of Major James E. Parker, Capt. Walter E. Todd and Lieut. Paul W. Blanchard followed the combat and thrilled the visitors with their perfectly-timed execution of difficult acrobatic maneuvers. Major Parker tossed an extra thrill into the crowd when he half-rolled his P-26 over the edge of the field at 2,500 feet and, leveling out the plane,, flew on his side the length of the field past the reviewing stand, with his wings perpendicular to the ground. All effect seemed lost, however, on one young birdman from Georgia who mildly exclaimed: "What's the matter, have the cross-winds got him?" The show was climaxed by an aerial review of 15 P-26A's demonstrating close "V," elements and flights in line, echelonment up and down, and rat-racing.

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WASHINGTON NATIONAL GUARDSMEN PARTICIPATE IN WAR GAME

By the News Letter Correspondent

A Red enemy force attacking Spokane, Wash., hub of the Inland Empire, was defeated in a war game on the morning of April 28th, when 400 officers and men participated in a command post exercise for "the purpose of giving practice in staff and communication technique."

For more than four hours, four Observation planes of the 116th Observation Squadron, 41st Division Aviation, Felts Field, Spokane, flew over the problem, executing communication, panel and photographic missions.

At Brigade Headquarters, American Lake, Wash., Brigadier-General Carlos Pennington commanded the exercise, which included the communication platoons of the Fourth Infantry Regiment, Fort George Wright; 161st National Guard Infantry, 1st battalion; the 1st battalion of the 148th National Guard Field Artillery, and personnel of the 116th Observation Squadron.

For delegates attending the Annual Convention of the Washington Department of the Reserve Officers' Association, the problem was a closing Convention feature, giving seven hours' credit to all Reserve officers participating in the problem. Lieut.-Colonel Abbott Boone, of Seattle, in charge of Reserve activities for the State of Washington, observed the exercise with outspoken approval and commendation.

Two Douglas O-38E planes from the 41st Division Aviation, equipped with SC-134 radio sets, were in constant contact with the 81st Brigade Headquarters and the 148th Field Artillery. Observations of front lines were made every 30 minutes and reported by radio, to be verified later by overlays.

A third O-38 made 30-minute observations of the front lines of the 161st National Guard Infantry and 384th Infantry Reserve. These positions were reported by overlays after front line panels had been displayed upon request by the firing of a red Very pistol.

The fourth plane, photographic, delayed at Felts Field, which was the advance airdrome, about nine miles from the theatre of operations. Communication with this plane was through the Brigade Headquarters radio to the ground station at Felts Field.

Three photographic missions of front line locations were called for in code radio communication. Actual delivery of the photographs to the front line locations was made in 17 minutes, not including the time for coding and decoding the messages.

Observers participating in the exercise learned considerable about "closer observation of smaller objectives on the ground "as considerable difficulty was experienced at first in locating the 24-inch square white and orange panels on the wooden ground, indicating the front line positions of the friendly troops. The observations were made at about 4,500 feet above sea level, or 2,500 feet above the ground. The problem was spread over an area of less than three miles about the banks of the Spokane River, below Fort

George Wright.

Exceptional practice resulted from the problem for all radio stations, which included a net of five stations composed of two radio ships, the Felts Field ground station, Brigade Headquarters and 148th Field Artillery Headquarters. Special wave lengths were assigned all stations, and all messages were sent in code for decoding purposes.

All watches, including those of pilots and observers, were synchronized by radio from Brigade Headquarters, which twice moved its position during the problem.

Major Edwin D. Patrick, Infantry, Regular Army Instructor attached to the 161st National Guard Infantry, and author of the exercise, acted as chief umpire, and had as assistants Regular Army officers from Fort George Wright.

The only organization permitted the use of pyrotechnics was the 41st Division Aviation, which was assigned red Very pistol for display of front line marking panels, green Very pistol for "acknowledge," and white Very pistol for "Ready to work with you."

A special encode and decode was prepared by Major Patrick. Symbols were created to designate all hills, bridges, rivers and creeks, houses, road junctions and Civilian Conservation Camps in the area.

At the critique which followed the program, General Pennington declared that much good resulted from the exercise, adding that "the officers from all organizations functioned well after getting the problem in mind, and we proved that our officers and men are ready to meet any situation that might arise."

Throughout the problem the 41st Division Aviation kept a close liaison with the ground forces and explained the situations in which the aircraft could best serve the friendly troops.

Similar exercises are on the training schedule for the 41st Division Aviation Camp on June 11th at American Lake, Wash., where a Division Camp will be held for two weeks.

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RADIO BEAM FLYING BY 11th BOMB. SQUADRON

The 11th Bombardment Squadron, Hamilton Field, Calif., is entering into an extensive operations program as outlined in War Department Circular No. 6, January 24, 1935. On April 18th, four Squadron officers completed a 300-mile radio beam flight to Humboldt, Nevada, and four other officers completed a 600-mile radio beam flight to Yuma, Arizona. The training program is being met with the greatest enthusiasm by all personnel, and they voice the hope that more airplanes will soon be made available in order to conduct the training yet more intensively.

FIELD EXERCISE BY 56th SERVICE SQUADRON

The 56th Service Squadron will depart on May 17th from Selfridge Field, Mich., for a short field exercise for the purpose of limbering up trucks which have been in "cold storage" at that field since their arrival. The contemplated exercise, which it is believed is the first of its type to be undertaken since the organization of the GHQ Air Force, is expected to furnish much valuable information regarding the movement of an entire organization under the new plan.

These exercises will take place in the vicinity of Flint, Mich., and will include every officer and man of the Squadron present for duty on the station. The equipment will consist of 12 Dodge personnel carriers, one Ford field ambulance, FWD 400-gallon gas truck for servicing trucks and airplanes, one Dodge ½-ton panel truck, 5 Dodge ½-ton pick-ups, 20 Dodge 1½-ton trucks, 7 Federal 2½-ton cargo trucks and a few motorcycles, the number dependent upon those set up at the station at the time the Squadron takes the field.

The Squadron will move out on May 17th and proceed via a roundabout route to the site selected, which will be in close proximity to some airport, and set up camp. On the 18th, all available airplanes of the First Pursuit Group will work in and out of the airport selected, during the course of a tactical problem. The 56th Squadron will service these airplanes and make such repairs as may be necessary. On May 19th, the Squadron will strike camp and proceed to Selfridge Field.

Major Warren A. Maxwell will command the Squadron; Captain Morley F. Slaght will be in charge of supply functions, and 1st Lieut. William J. Bell will be in charge of the convoy, with Master Sgt. Bredvad and Technical Sgt. Forster in command of sections of the convoy.

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HELIUM GAS FOR CAPTIVE BALLOONS

A matter of interest with reference to the development of Lighter-than-Air equipment is the recent action taken to furnish the First Balloon Squadron at Fort Sill, Oklahoma, with Helium for the operation of a captive balloon by that organization.

The Air Corps Materiel Division, Wright Field, is collecting comparative performance data that would be of value in the design of an observation balloon intended for operation with Helium gas. This marks a decided advancement, as heretofore captive balloons have been operated with hydrogen gas only, with the consequent fire hazard, which is eliminated when Helium is used.

NEW HAWAIIAN DEPT. COMMANDER HONORED

The 18th Pursuit Group, Wheeler Field, T.H., held an inspection, review and tactical exercise in honor of Major General Drum, the new Hawaiian Department Commander, on April 4th. The flying equipment, personnel and motor transport of the group was inspected on the line, after which airplanes and motor transport passed in review. This was followed without interval by an attack on the Group motor column by the aircraft of the Group. The General expressed himself as well pleased with the showing of the Group, despite rain, low clouds and generally unfavorable conditions.

In the evening, the Group with other elements of the 18th Wing gave a reception and dinner in honor of the new Department Commander at the Oahu Country Club.

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FIRST WING HAS SECOND CONCENTRATION

Fifteen sky raiders of Hamilton Field, Calif., passed in air review on April 13th, as a preliminary to the second concentration of the 1st Wing the next day. At 7:30 a.m., on April 14th, 14 Bombers, under the command of Lieut.-Colonel Clarence L. Tinker, took off from Hamilton Field to a 10:30 a.m. rendezvous over Cajon Pass. At 11:00 a.m., they bore down on March Field to join the second concentration of the 1st Wing. In the afternoon they passed in review before Brigadier-General Henry H.Arnold, Wing Commander.

On April 15th, the Ninth Corps Area Commander, Major-General Paul B. Malone, reviewed the Wing, of which the 7th Bombardment Group flew as a unit. At noon of the following day, the 14 planes of the Group landed at Hamilton Field, marking the end of the Maneuvers.

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ARMY DAY AT AIR CORPS FIELDS

On Army Day, April 6th, an aerial review was held at Barksdale Field, La., and the entire Third Wing flew over the City of Shreveport immediately thereafter. Very generous publicity was given the occasion by the local newspapers, and the Shreveport TIMES arranged an interesting and unique radio broadcast of the review, with a preliminary address by Lieut.-Colonel Millard F. Harmon, commanding the Third Wing during the absence of Colonel Gerald C. Brant, who was attending a conference of Wing Commanders at Langley Field, Va.

The 18th Pursuit Group participated in a Wing Review over the City of Honolulu on April 5th, as part of the Hawaiian Army Day Program. This was followed by a Pursuit demonstration featuring a large letter "A" by the 6th Squadron and Pursuit acrobatics by the 19th Squadron. An airplane from the Group was displayed in Honolulu as a part of the Army Day Program

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On April 5th, the 5th Composite Group, stationed at Luke Field, engaged in a Wing aerial demonstration over the Island of Oahu and City of Honolulu in commemoration of Army Day. On April 6th, Luke Field and the 5th Composite Group joined with all other military forces of the Hawaiian Islands in placing extensive military exhibits on the Capitol grounds for the benefit of the general public. The Air Corps exhibit consisted mainly of airplane motors, miscellaneous airplane parts, armament and parachutes, and attracted a wide attendance and very favorable comment.

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FORMATION LEADERS FLYING UNDER THE HOOD A ROUTINE OCCUPATION AT HAMILTON FIELD

Inviting attention to the item in the April 1st issue of the News Letter to the effect that the 50th Observation Squadron at Luke Field, Hawaii, has been experimenting with formations in which the leader flies under the hood, the Hamilton Field Correspondent states that occasions have developed at that field when the formation leaders were forced to fly by instruments alone through "soupy" weather as a matter of absolute necessity and not one of experiment or practice. "Accordingly," he adds, "it is urged by the pilots of Hamilton Field that their friends in the 50th continue zealously their experimentation."

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AERIAL GUNNERY BY 7th OBSERVATION SQUADRON

The 7th Observation Squadron, stationed at France Field, Canal Zone, completed its annual Gunnery Encampment which was established at Rio Hato, Republic of Panama, on April 8th. Following the completion of the course, the camp was turned over to the 25th Bombardment Squadron on April 18th, making ten days altogether in the field. A permanent crew of two officers and 17 enlisted men was maintained for the purpose of camp administration. Three officers commuted daily from France Field to Rio Hato at noon, firing in the late afternoon and early morning. In general, the firing was good, considering the poor air conditions on some mornings. All officers who fired qualified, five as Expert in the Pilots' Course and ten as Expert in the Observers' Course. Capt. C.W.Cousland made high score on the former and Major Wm.B. Mayer on the latter. Fifteen enlisted men qualified on ground targets.

V-6787, A.C.

COOPERATION IN METEOROLOGICAL SERVICE

In a paper recently presented during the aeronautical session of the 6th Annual Greater New York Safety Conference by Mr. Willis R. Gregg, Chief of the Weather Bureau, U.S. Department of Agriculture, he stressed the great importance of cooperative effort on the part of all agencies concerned in the organization and use of weather service to promote safety in aeronautics.

Stating that the Weather Bureau is charged by law with the responsibility of providing meteorological service for all public needs, Mr. Gregg added that, so far as weather service for aeronautics is concerned, the three governmental bureaus with which cooperation is most vitally necessary are the War, Navy and Commerce Departments.

Prior to the World War, the War and Navy Departments had no meteorological units of their own, all weather service being centered in one agency, the Weather Bureau. The experience in that war led to a change of policy relative to weather service, its great importance in military and naval campaigns leading to the creation of relatively small meteorological sections in both departments as a regular part of their peacetime organization. The service is of a highly specialized type, differing in many respects from that for any form of civil activity. The personnel engaged in it also have military training and status, with the result that these units will be able to function at once in case of war.

With the establishment of these additional meteorological organizations within the government, steps were taken to eliminate all unnecessary duplication and to make their facilities and service and those of the Weather Bureau mutually available and effective. Very complete observations, including upper air, are made at the air stations of these Departments and on aircraft carriers, and the data made available to the Weather Bureau for both current and statistical use.

The meteorological services of the War and Navy Departments depend upon the Weather Bureau for the greater part of the data they require. At Washington representatives of the two Departments copy and chart the reports at the Bureau itself. In other cases they are received by radio and in still others by means of a teletype drop connected with the airway communication system of the Department of Commerce, with the result that the data from all sources are available for the use of each service at essentially the same time.

A very important cooperation is extended to the Bureau by the communication services of the two Departments. For example, the Alaskan reports are transmitted by Signal Corps radio to Seattle, Wash., whence they are distributed to other points in the States. Similarly, the Navy Department forwards reports from its own ships and in many cases collects and transmits similar reports from merchant ships, particularly during periods of severe weather conditions such as occur in the hurricane season.

The most recent example of cooperation and one of the most valuable is the organization in July,1934, of a network of airplane observational stations,comprising 22 as against half a dozen prior to that time. About an equal number is maintained by each of the three agencies. Those of the War and Navy Departments are at their flying fields and the flights are made as a regular part of the program of training, with the result that very little additional expense is involved. The records secured are already proving to be of great benefit, although the period of their use is as yet too short to make possible a full appraisal of their value. All three services are employing the so-called "air-mass analysis" technique in the charting and study of these upper air records of temperature and humidity and from some results already obtained it is quite evident that considerable improvement in the accuracy of weather forecasting will be realized.

The Bureau of Air Commerce, Department of Commerce, responsible for the safety and efficiency of civil air transport, has direct charge of the organization and operation of certain navigational and other aids, the most important of which, so far as meteorological service is concerned, is communications which, gradually developed into its present high state of efficiency, is the medium through which weather reports and forecasts are provided promptly to pilots and others needing them. The chief difficulty,so far as weather service is concerned,is that of arranging suitable time schedules. There seems always to be more information available than there is time for its transmission. However,the problem is under constant attack by the two Bureaus, one working on the development of improved equipment and technique and the other on the possibilities of condensing of observational material, by code or otherwise, to assure the regular transmission of all that is needed by the broadcasting stations throughout the airway system. The cooperative work by the two Bureaus constitutes a very definite factor in assuring as large a margin of safety from the hazard of weather as is possible at the present time.

A type of cooperation which is gradually growing and is certain to develop into a most important feature of the whole weather service is that given by air transport companies. After an airway has been provided by the Weather Bureau with all necessary current information and forecasts, there still remains the necessity of holding or releasing each plane as its scheduled time of departure arrives. In assuming this responsibility, air transport companies have come to recognize that the dispatchers must include, as an important qualification, a very intimate acquaintance with the details of the weather service, if not a fairly comprehensive knowledge of the science of meteorology itself. Some of the larger companies have personnel with sufficient meteorological training to make them competent to apply the service furnished by the Weather Bureau to their own needs.

Weather Bureau forecasts usually cover successive periods of four to six hours, but the meteorological personnel of some of the companies supplement these by more detailed forecasts for each individual flight.

Within the past year an arrangement has been worked out with one of the air transport companies in accordance with which its pilots make notes of the weather conditions through which they pass,- temperature, height of base and top of cloud layers, occurrence of ice formations, bumpiness, rain, snow, marked inversion, change in wind direction and velocity and anything else of special interest. These data are given to the Weather Bureau's airway forecast centers as soon as the plane lands. Plans are under consideration for the receipt of the reports by radio during the flights. It is altogether probable that other companies will enter into a similar arrangement. Already important results are being realized.

The primary obligation in making a flight is to get the plane and cargo through safely, but comparatively few flights would ever be made in some sections if they were limited to really satisfactory weather conditions. Unless schedules can be kept with reasonable regularity, confidence breaks down and patronage ceases. It becomes necessary, therefore, to "strike a balance", to attempt all flights except those when it is considered that the conditions are so bad as to offer a real hazard. Decision is often difficult, particularly in what may be called "borderline" cases, when conditions are passable and are expected to continue passable for the duration of the flight, yet there is a possibility of their changing for the worse sufficiently to make flying difficult or even dangerous. The problem is being rendered progressively easier by the introduction and use of navigational and other aids, such as radio beacons, ranges, markers and broadcasts, course lights and improved equipment and by the experience of the pilots themselves, with the result that flying is now perfectly safe in many conditions that formerly would have been considered decidedly adverse.

There are two essentials in solving this problem of safety completely. One is that information concerning the weather, both current and expected, be detailed, accurate and complete. The other is that the pilot, or other official having the responsibility of ordering or canceling a flight, give due regard to the information and forecast furnished by the meteorologist.

In a study of aircraft accidents caused wholly or in part by bad weather, it was found that the meteorological factors most frequently responsible for the occurrence of accidents are as follows, in the order of their importance:

1. Ice formation.
2. Low ceiling.
3. Poor visibility, caused by fog, rain, snow, smoke, dust, haze, sand and dust storms.
4. Heavy precipitation.
5. Bad field conditions resulting from snow, ice, rain, etc.
6. Thunderstorms, squalls, etc., with attendant strong vertical currents and turbulence.
7. Gustiness and turbulence near the ground.
8. Unfavorable winds, causing exhaustion of fuel supply.
9. Lightning.

During the years 1931 to 1934, inclusive, the period covered by the above study, there were 102 accidents in scheduled air transport operations that were definitely charged to weather. In 88 of these, or 86%, the conditions as actually encountered were known by the pilot before starting on his flight. In the remaining 14 cases, 14%, the conditions actually encountered were more unfavorable than expected, some of them being due to bad weather locally between observing stations of whose existence, therefore, there was no way of knowing.

In the light of what happened, especially in the 88 cases when it was known in advance that conditions were bad, it is of course apparent that the flights should not have been undertaken. Yet in many of these cases the conditions were no worse than on other occasions when flights had been made without accident. This emphasizes the difficulty of making a decision in these "borderline" cases, and it emphasizes also the great need of the closest kind of cooperation between pilot and meteorologist. That this cooperation is becoming increasingly well established is shown by statistics furnished by the Bureau of Air Commerce. In the year 1931, the number of accidents caused by weather was 30, as against 35 for 1932, 25 for 1933 and 12 for 1934.

The approximate number of miles flown

in the year 1931 was 47,000,000; in 1932, 52,000,000; in 1933, 54,500,000, and in 1934, 41,000,000.

In 1931, approximately 1,600,000 miles were flown per accident due to weather, as against 1,500,000 for 1932; 2,400,000 for 1933 and 3,400,000 for 1934.

From these figures we see that there has been during the past four years an increase in safety, from accidents caused by weather, of more than 100 percent in scheduled air transport operations, considered on the basis of the number of miles flown. A part of this increase is, of course, a result of improvement in other airway aids, but it is believed that by far the larger part can be attributed to the more intensive use of the airway weather service. Also, the weather service itself has been improved in many ways, chiefly through the experience gained by personnel engaged in it, the establishment of additional upper air stations and the adoption of improved, modern methods of forecasting.

In conclusion, we are quite justified in stating that, with improved design and construction of aircraft, the perfection of navigational aids, the development of an increasingly efficient weather service, and above all complete and effective cooperation on the part of all agencies involved, we may look forward with confidence to a progressively continuing decrease in the number of accidents caused by adverse weather conditions.

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LANGLEY FIELD WEATHER BROADCAST SERVICE

A system is in the process of installation at Langley Field, Va., whereby weather broadcasts similar to that of Department of Commerce Stations will be made by the Post Operations Office at Langley Field. This service will be operated on the frequency of the Langley Field radio beacon at zero minutes past the hour, during poor daylight weather, when night flights are cleared to or from Langley Field, and upon request.

The Post Operations Radio Station will guard 3105 Kcs. (and other frequencies upon request) for requests for weather information. This service will be in operation 24 hours per day.

The following sequence will be observed in the weather broadcasts:

1, Station; 2, Ceiling; 3, Condition of Sky; 4, Visibility; 5, Temperature; 6, Dew Point; 7, Direction and speed of wind; 8, Barometer; 9, Any special hazards or conditions of interest to the pilot.

When a key in the Post Operations Office is depressed, a relay to the Radio Beacon is actuated, opening the plate circuit of the transmitter tubes and temporarily silencing the Beacon. Another relay actuates the switch on a remotely controlled SCR-132 set tuned to Beacon frequency. The operations operator on duty at his desk in Post Operations Office broadcasts his weather sequence and /or requested information. Upon releasing the key, the remotely controlled radio set cuts off and the Beacon resumes its broadcast.

The operations personnel are being trained in broadcast procedure and voice so that the pilot flying blind can hear "Ceiling Zero, Visibility Zero," spoken by a pleasant, modulated "voice with a smile."

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AERIAL SURVEY TO DETERMINE THE EXACT BOUNDARY LINE OF THREE COUNTRIES

The 12th Photo Section, Air Corps, stationed at France Field, Panama Canal Zone, completed 6,000 multiple lens prints from 1200 T3-A camera negatives made by Major W.R. Taylor and Sgt. George W. Edwards on the border line of Guatemala, Honduras and El Salvador. These photographs were made at the request of the State Department for the Arbitration Commission of the three countries who are settling the exact boundary line.

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88th OBS. SQDN. RETURNS FROM WEST COAST

The 88th Observation Squadron (LR Amphibian) returned April 17th from March Field, Riverside, Calif., where four days were spent participating in maneuvers of the 1st Wing (to which this squadron is attached). The flights out and return were made as Squadron air navigation missions under the leadership of Major Calvin E. Giffin, Squadron Commander.

The seven planes making the trip, in two flights of four and three planes, respectively, took off from Brooks Field at 5:30 a.m., April 13th, and arrived at March Field, flying by way of El Paso, Texas, and Tucson, Arizona, about 4:30 p.m., Pacific Coast time the same day.

The following day was passed in critique, flying practice review, and the Wing Dinner, at which affair all pilots of the 1st Wing were addressed by Major-General Paul B. Malone, 9th Corps Area Commander, and by Brigadier-General Henry H. Arnold, Commander of the 1st Wing.

On April 15th, the entire Wing participated in Mass Maneuvers and in a review honoring General Malone. Some 150 planes, comprising one Bombardment Group, Hamilton Field; one Attack Group, March Field; one Observation Squadron, Rockwell Field; one Squadron from Crissy Field, and the 88th Squadron from Brooks Field took part in these maneuvers.

BARKSDALE FIELD BECOMES ONE OF LEADING CROSS-ROADS IN SERVICE AVIATION

Barksdale Field, Shreveport, La., long the proposed and now the actual home of the Third Wing, GHQ Air Force, is rapidly becoming one of the leading cross-roads in service aviation. The Navy, Coast Guard and Marine branches, as well as our own Air Corps, make frequent use of Barksdale Field's facilities in East-West crossings of the continent. The southern route for this crossing is becoming of increasing importance and, in many instances, shortens distances.

As evidence of the convenience and importance of this field, the following data as to distinguished visitors during April is submitted by the News Letter Correspondent:

Major-General George S. Simonds, Deputy Chief of Staff of the Army, accompanied by his Aide, 1st Lieut. C.K. Gailey, made an informal inspection of the new Third Wing at this field on April 3rd. The two officers were flying in an Army Transport plane, piloted by Capt. Hez McClellan. The extended inspection trip taken by General Simonds, utilizing air transportation, is evidence of increasing air-mindedness on the part of General Staff officers. General Simonds inspected many Army fields, as well as other Army posts and installations during the trip.

General Foulois, accompanied by Captain H.A. Halverson, made an informal inspection of the field on April 4th. On April 24th, General Foulois, this time accompanied by Major Carl Spatz, again stopped at Barksdale Field, remaining overnight.

Hon. Harry H. Woodring, Assistant Secretary of War, honored Barksdale Field with his first visit on April 17th. He expressed himself as well pleased with the field and the aerial review held in his honor.

Captain Albert C. Read, who flew the NC-4 across the Atlantic Ocean in 1919; Lieut.-Col. Roy Geiger, Chief of Marine Corps Aviation, and Major Francis P. Mulcahy, veteran Marine Corps flier, made a brief stop at this station, en route to California. Colonel Geiger was ferrying a new Vought Corsair Observation plane to San Diego.

Mr. George S. Wheat, Vice President of the United Aircraft Corporation, arrived on April 4th, shortly after General Foulois departed. His pilot was Mr. B.H. Whelan, Manager of United Airports of Connecticut, Inc., and Mr. Philip Nevin was co-pilot. Mr. Wheat recently returned from a trip around the world, during which he visited many air fields of various sizes and prominence, and he expressed himself as being greatly impressed by this Army air base. Several officers of this station were taken for a demonstration ride in the latest type Boeing 2-47, equipped with two double-row Wasp engines of 700 horsepower and new constant speed, variable pitch propellers, prior to Mr. Wheat's departure on April 5th.

Capt. John H. Hoover, Chief of Staff to the Commandant of the Aircraft base force of the U.S. Fleet, accompanied by Lieut.-Commander Alfred Stump, made an overnight stop here on April 13th, en route to San Diego. On the same date, Commander Alfred Montgomery, from Pensacola, Fla., [illegible] also enroute to the West Coast, spent the night at Barksdale Field.

In addition to the largest landing field in the country, Barksdale Field comprises a large area of lakes, bayous and woods. This area is part of the reservation and provides machine gun and bombing ranges. The total area of the reservation is some 22,500 acres. Tentative plans of the Fourth Corps Area call for the assignment of two CCC companies for the care of the wooded areas. Each company will require 14 buildings for housing, administration and messing. Last summer, forest and brush fires threatened a large portion of the outlying areas, and at one time several thousand acres of woodland were burned. This area of woods and lakes provides an ideal fish and game sanctuary. A limited amount of fishing and hunting in season is now allowed, and by means of proper conservation methods, it is hoped to make this feature the cause for many visitors.

The present population of Barksdale Field, including families of officers and enlisted men, is about 2,500.

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TIMELY WARNING BY ARMY PILOTS AVERTS CALAMITY

The 11th Bombardment Squadron, Hamilton Field, Calif., received credit for another errand of mercy on April 15th. A troop of sea scouts had put out from a San Francisco wharf in two boats, provisioned with food reported to be poisonous. Upon receiving word of the situation, Lieuts. Aubrey K. Dodson and O.M. Nelson immediately took off, located the two boats on San Francisco Bay with neatness and dispatch, and successfully dropped messages to the Scouts, saving them from possible death or serious illness.

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LIBRARY ESTABLISHED AT HAMILTON FIELD

Chaplain Stanley J. Reilly transformed the old frame building, originally erected as an office of the Constructing Quartermaster, into a chapel of worship. Through his efforts, the people of the Bay districts have given of their books and magazines to the soldiers at Hamilton Field. With this as a nucleus, he has organized a post library with almost a thousand volumes. He is now the Post Library Officer as well as the Post Chaplain. Chaplain Reilly has also sponsored a movement for the initiating of a Hamilton Field Stamp Club among the children of the post.

For heroism while participating in aerial flight.

Air Corps

Lieut. Russell L. Meredith

For hazardous flight, February 7, 1923, taking medical aid to injured man at point of death on Beaver Island, Lake Michigan, under extremely adverse and dangerous flying conditions.

2nd Lieut. Uzal G. Ent

During the National Elimination Balloon Race, starting from Bettis Field, Pittsburgh, Pa., May 30, 1928, the balloon was struck by lightning, instantly killing Lt. Paul Evert, pilot. Not certain that pilot was killed, Lt. Ent, aide, endeavored to revive him at the risk of his own life instead of jumping with his parachute.

Master Sgt. Ralph W. Bottriell

On May 19, 1919, at McCook Field, Dayton, O., he made the first jump to be performed by Army personnel with a manually operated free type parachute. Jumping of any kind was then considered extremely hazardous. Sgt. Bottriell repeatedly jeopardized his life while making parachute test jumps from airplanes flying at various speeds and altitudes to perfect this parachute. By his untiring efforts, fearlessness and disregard of personal danger, he aided materially in proving the practicability of the free type parachute for airplane use.

Captain Hawthorne C. Gray (posthumously)

On March 9, 1927, he attempted to establish a world's altitude record for the Air Corps, and reached 27,000 ft.; on May 4, 1927, he reached 42,470 ft. and on Nov. 4, 1927, 42,000 ft. After reaching the ceiling on his last attempt, the supply of oxygen became exhausted when the balloon reached about 37,000 ft. on the descent, and Capt. Gray lost his life.

Captain Ulysses G. Jones, pilot
1st Lt. Walter T. Meyer, Radio Operator,
2nd Lt. Edwin T. Rawlings, pilot
Staff Sgt. Robert F. Summers, mechanic

During a tactical training flight of 16 planes from Luke Field to Hilo, Hawaii, May 14, 1930, one of the bombers fell out of control and the crew were forced to take to their parachutes, landing in a rough sea. Capt. Jones and Lt. Rawlings, each piloting amphibian planes, landed on the water in an attempt to rescue these men. Owing to the high wind and waves, coupled with the nonfunctioning of motors of these planes, efforts made to maneuver them towards the men in the water proved unsuccessful. However, by landing in close proximity to them the crew of a Naval flying boat was able to see the men and effect their rescue.

2nd Lt. Irvin A. Woodring
2nd Lt. Wm.W. Caldwell, Res. (posthumously)

On October 15-16, 1930, Lieut. Woodring as flight leader, accompanied by Lt. Caldwell, both piloting Pursuit planes, proceeded from Vancouver, Canada, under secret orders of the War Department, to Newark, N.J., carrying documents of international importance for delivery to a State Department agent at Newark, their receipt by the latter on scheduled time being of the utmost importance. Extremely hazardous flying conditions were encountered in Wyoming, snow and clouds completely destroying visibility from the ground to an altitude of 16,000 feet. Lieut. Woodring, carrying the original papers, delivered them in time.

Lieut. Caldwell, blinded by a snow storm, crashed to his death.

1st Lt. Robert D. Moor (posthumously)

On August 23, 1931, during a formation flight, a terrific air current encountered caused one of the planes to be thrown against the one piloted by Lt. Moor, damaging the tail group and rendering it uncontrollable. Instead of jumping with his parachute, Lt. Moor endeavored first to save his passenger and repeatedly ordered him to jump. The latter eventually jumped and landed safely with his parachute, but in leaving he unbalanced the airplane which immediately fell out of control, crashed and burst into flames, resulting in Lt. Moor's death.

Sergeant Frank D. Neff

On the night of Dec. 3-4, 1931, during a severe wind and rain storm, the Army airship TC-71 broke from its moorings. Sgt. Neff succeeded in starting one of the motors but was unable to start the other from within the car. Realizing that the airship was not under full control and in danger of being wrecked and the crew injured, he immediately discarded the parachute, climbed out of the car upon the unprotected outrigger of the wildly plunging dirigible, and working in the darkness in this perilous position succeeded in hand-cranking the left motor, thereby bringing the aircraft under full engine control.

1st Lt. Cornelius W. Cousland

While piloting an amphibian plane May 31, 1934, in the Panama Canal Zone, mechanical failure caused a portion of the right motor to penetrate the pilot's cockpit with such force that the co-pilot was fatally injured and fell across Lt. Cousland and the controls. The plane started into a spin. Disregarding his own serious injuries, Lt. Cousland ordered his passengers to retain their seats, and by his courage, presence of mind and complete mastery of the art of piloting, maneuvered the disabled aircraft to a safe landing on the surface of a stump-studded lake.

Awards for other outstanding accomplishments

Orville Wright
Wilbur Wright (posthumously)

Designed, constructed and operated the airplane which at Kitty Hawk, N.C., Dec. 17, 1903, made the first successful flight under its own power and carrying a human operator, thereby making possible the achievements which are now stirring the emotions and pride of the world.

Mrs. Amelia Earhart Putnam

For displaying heroic courage and skill as a

navigator, at the risk of her life, by her non-stop flight in her plane from Harbor Grace, Newfoundland, to Londonderry, Ireland, on May 20, 1932, by which she became the first and only woman and the second person to cross the Atlantic Ocean in a plane in solo flight, and also established new speed records and elapsed time between the two continents.

Air Marshall Italo Balbo, Italian Air Force
General Aldo Pellegrini, Italian Air Force
In recognition of the Italian mass flight to the United States in 1933.

AWARD OF OAK LEAF CLUSTER TO THE D.F.C.

Captain Eaker, Lts. Doolittle and Hegenberger were also awarded the Oak Leaf Cluster, D.F.C., the first-named for service as relief pilot in the Refueling Duration Flight, January 1 - 7, 1929; Lieut. Doolittle for performing a series of acceleration tests with a PW-7 Pursuit plane, which was put through the most extreme maneuvers possible in order that the flight loads imposed upon the wings of the plane might be ascertained, thereby securing scientific data of great and permanent importance to the Air Corps, and Lieut. Hegenberger for his valuable contribution to aviation in perfecting the instrument landing system.

AWARD OF D.F.C. TO U.S. MARINE CORPS PERSONNEL

Lieut.-Colonel Thomas C. Turner
Extraordinary achievement in aerial flight as Commanding Officer, April 22, 1921, in flight from Washington, D.C. to San Domingo and return.

Major Louis M. Bourne, Jr.
In aerial flight from Miami, Fla. to Managua, Nicaragua, on January 14, 1928.

Major Ross E. Rowell
On July 16, 1927, in Nicaragua, leading flight of five planes in the face of tropical storm, conducted the attack in which the greater part of the enemy were destroyed, and saved the little gassison at Ocotal from almost certain destruction.

Captain Alton N. Parker
Pilot on December 5, 1929, during a flight of exploration over the unexplored regions of the Antarctic.

1st Lieut. Frank D. Weir
1st Lieut. Frank H. Lamson-Scribner
Piloting plane in attack against strong force of bandits in Nicaragua, Jan. 14, 1928.

1st Lieut. Hayne D. Boyden
For extraordinary heroism, initiative and excellent judgment while in command of an air patrol in the attack against the enemy on July 16, 1927, at Ocotal, Nicaragua.

1st Lt. Basil G. Bradley, Executive Officer
1st Lt. L.H.M. Sanderson, Engineer Officer
Charles W. Rucker, Gunnery Sgt., Mechanic
Extraordinary achievement in aerial flight on April 22, 1921, from Washington, D.C., to San Domingo and return.

Chief Marine Gunner Michael Wodarczyk
For extraordinary achievement in aerial flight on Feb. 28, 1928, and March 19, 1928, in Nicaragua.

Master Tech. Sergeant Albert S. Munsch
For extraordinary achievement in aerial flight as pilot in Nicaragua, January 14, 1928.

Major Ralph J. Mitchell
While commander of the Aircraft Squadrons in Nicaragua, he led six-plane patrol in attack against bandits in Nicaragua, June 19, 1930.

Captain Byron F. Johnson
In command of a two-plane patrol in attack against bandits in Nicaragua in the morning and afternoon of June 19, 1930.

1st Lieut. Herbert P. Becker
In command of a 2-plane patrol in attack on a strong force of bandits in Nicaragua on July 22, 1931 and again on July 26, 1931.

1st Lieut. Charles L. Fike
1st Lieut. John N. Hart
Piloting a plane in attacks against bandits in Nicaragua on May 2,1930 and June 19, 1930.

1st Lieut. John S.E. Young
Piloting a plane in attacks against bandits in Nicaragua on morning and afternoon of June 19, 1930.

2nd Lieut. Raymond P. Rutledge
Piloting a plane in attacks against bandits in Nicaragua on May 23, 1932. Located the crew of a plane lost in the dense jungles and for three days until he was killed in an accident over the jungles, made many flights under extremely dangerous conditions to drop supplies to the stranded crew and to direct a ground patrol that was proceeding to its rescue.

Gunnery Sergeant Neal G. Williams
Piloting a plane in attack against bandits in Nicaragua on July 6, 1932.

Staff Sergeant Gordon W. Heritage
Piloting a plane in attack against bandits in Nicaragua on July 22, 1931.

Sergeant Hilmer N. Torner
While a passenger in an airplane on March 22, 1932, at San Diego, Calif., the pilot became ill and fell forward on the controls in a fainting condition. Torner pulled the pilot from the controls and righted the plane which was falling in a spinning motion from an altitude of approximately 2,000 feet. Although he had never flown a plane, Torner landed it without damage and then administered first aid to the pilot.

AWARD OF D.F.C. TO OFFICERS OF U.S. NAVY

Commander Robert R. Paunack
Saving the dirigible C-8 from destruction on January 3, 1919, by fire, thereby saving the lives of its crew of six.

Rear Admiral Richard E. Byrd (Retired)
Lieut. George O. Noville, U.S.N.R.
New York to France Flight of 1927.

Lieut.-Commander Ben H. Wyatt
Alaskan Aerial Survey Expedition. 1926. Was in command of expedition during entire time.

Lieut. Delbert S. Cornwell
Attempting to save the life of a passenger while maneuvering at an altitude of 2,000 feet, the left wing of the plane collapsed. The plane crashed to a complete wreck, resulting in death of passenger and injury to the pilot (November 18, 1926).

Lieut. (JG) William V. Davis
Dole Air Race, August 16, 1927. Was navigator of the winning plane "Woolaroc."

Lieut. Alford J. Williams
For experimental flights during March, 1928. Obtaining data and developing methods of control for airplanes in inverted flight; also putting planes in tail spins and observing action, from which observations he developed procedure to be followed to get planes out of tail spins. Stayed with one plane in a spin so long that plane crashed.

Lieut. Wallace N. Dillon, Executive Officer
Lieut. Eugene F. Burkett, Navigator (Dec.)
Lieut. Richard F. Whitehead, Photo Officer
Aided materially in successfully performing a hazardous and difficult aerial survey of Southeastern Alaska during summer of 1926.

Claude G. Alexander, Chief Radio Electrician
Alaskan Flight as above.

Lieut. Apollo Soucek
Extraordinary achievement in the art of high altitude flying, establishing on June 4, 1929, a world's altitude record for seaplanes, and on June 4, 1930, a world's altitude record for heavier-than-air craft.

Lieut. George T. Cuddihy (Deceased)
For his discovery of the principle of regaining control of a plane in a tail spin and for other daring ventures in the realm of experimentation which contributed toward advancement of the science of aeronautics.

Lieut. Emory B. Bronte, U.S.N.R.
In recognition of his heroic courage and great skill as a navigator on the second successful airplane flight from California to the Hawaiian Islands under extreme adverse weather conditions, July 14-15, 1927.

AWARD OF D.F.C. TO ENLISTED MEN, U.S.NAVY

Harold Irving June, Chief Aviation Pilot
Navy's representative and member of crew of "Floyd Bennett" which flew over South Pole on Nov. 29, 1929. Byrd Antarctic Expedition.

Patrick A. McDonough, Chief Photographer
William J. Murtha, Photographer, 1st Cl.
Alackan Aerial Expedition during summer of 1926, materially aiding in successfully performing a hazardous and difficult aerial survey of Southeastern Alaska.

Thomas G. Reid, Chief Aviation Pilot
(Posthumously)
Alaskan Aerial Expedition, 1926, as above.

Doyle Joseph Cavin, Aviation Machinist's Mate.
For extraordinary achievement while participating in aerial flight from Coco Solo, Canal Zone, to David, Republic of Panama, on December 14, 1933.

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SOME USEFUL 'DOPE' FOR THOSE GOING TO HAWAII

The Wheeler Field Correspondent submitted some interesting information regarding conditions in the Hawaiian Islands which should prove very useful to officers now under orders and those who expect orders for duty in the Hawaiian Department. He states:

a. Do not buy any white or khaki uniforms prior to your arrival. A reasonable time is allowed for the procurement of the above, and Japanese regimental tailors can outfit you completely in made-to-order style at a much more reasonable price than mainland tailors. Your minimum requirements here are as follows:

1 white service uniform complete
1 white mess jacket and vest with black high-cut tuxedo slacks.

Sufficient blouses, breeches, slacks and shirts of regulation khaki to permit you to present a good appearance on all occasions.

b. Bring a good tuxedo. Except when the mess jacket is prescribed, the tuxedo is worn exclusively during the evening at social functions or at home.

c. Due to the large amount of over-water flying engaged in by the Air Corps at this station, boots are seldom worn. However, for inspections, ceremonies, etc., spurs are prescribed (Air Corps lace boots excepted).

d. Move everything to Wheeler Field that you would care to take with you to any mainland station. Bring your furniture, your piano, radio and books. In fact, bring everything. Veneered furniture is not affected here any more so than at any mainland station close to the sea. You will enjoy your music here as much as ever. Up-to-date model radios are capable of excellent mainland reception and, in addition, Honolulu possesses two modern broadcasting stations whose programs are enjoyed throughout the Islands. Our climate is not as humid and damp as in most tropical locations so, again - bring your home with you. The quarters are large and you will not regret your decision to do so.

e. Shoes are somewhat expensive in Hawaii. It is recommended that you purchase a sufficient supply on the mainland to suffice for a period of two years or so.

f. The automobile question arises. Your license (yearly) will cost you one cent per pound, so don't bring a locomotive with you. A Ford weighs 2,600 pounds - result is $26.00.

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You sketch artists in the Air Corps - how about sending in cover designs for News Letter?

WAR DEPT. ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To Langley Field, Va.: Captains Barney M. Giles and John E. Upston for duty with GHQ Air Force, upon completion of present course of instruction at Air Corps Tactical School, Maxwell Field, Ala. - 1st Lt. Stuart G. McLennan for duty with GHQ Air Force upon completion of tour of foreign service - Captain David R. Gibbs, from Philippines, relieved from temporary rank upon date of departure, - Captain Walter Bender, from Chanute Field, for duty with GHQ Air Force.

To March Field, Calif.: 1st Lt. Robert M. Losey, from California Institute of Technology, Pasadena, for duty with 1st Wing.

To Hamilton Field, Calif.: 1st Lt. Richard C. Lindsay and 2nd Lt. William Ball, from Crissy Field - Major Clinton W. Russell from duty on War Dept. General Staff to duty with Station Complement.

To Chapman Field, Miami, Fla.: Major Wm. V. Andrews, from Bolling Field. Relieved from temporary rank May 19, 1935.

To Office, Chief of the Air Corps: 1st Lt. Donald F. Stace, from Brooks Field.

To Washington, D.C.: Captain William L. Ritchie, from Scott Field, Ill., for duty in Office of Assistant Secretary of War. Relieved from temporary rank, June 5, 1935.

To Barksdale Field, La.: Colonel Robert Goolrick, from Wright Field, for duty as Station Complement Commander - 2nd Lieut. Arthur F. Merewether, from duty as student at Mass. Inst. of Technology, for duty with 3d Wing.

To Randolph Field, Texas: Captain Courtland M. Brown from Hawaiian Dept. for flying training with class commencing July 1, 1935.

To Bolling Field, D.C.: Major Leslie MacDill upon completion of present course of instruction at Naval War College, Newport, R.I. Previous orders in his case revoked.

To Philippines: 1st Lt. James F. Phillips from duty as student A.C. Engineering School, Wright Field.

To Hawaiian Department: Major Don L. Hutchins from Hamilton Field. Relieved from temporary rank May 14, 1935.

To Los Angeles, Calif.: Capt. Leon W. Johnson from duty with 2nd Observation Squadron in Philippines and from temporary rank and to pursue course of instruction at California Institute of Technology.

To Houston, Texas: Captain Harry Weddington for duty as Instructor, Air Corps, Texas Nat'l Guard, upon completion of present course of instruction at Air Corps Tactical School.

To Chanute Field, Ill.: 1st Lieut. Samuel V. Stephenson, upon completion of present course of instruction, A.C. Tactical School.

To Fort Leavenworth, Kansas.: Lieut.-Col. Lewis H. Brereton from Panama for duty as Instructor, Command and General Staff School.

To Wright Field, Ohio: Captain Pearl H. Robey from Barksdale Field to duty as student at A.C. Engineering School. Relieved from temporary rank, August 1, 1935.

RETIREMENT: Captain Frederick A. Johnson, April 30, 1935.

ORDERS REVOKED: Assignment of 1st Lieuts. Dudley D. Hale and Warren H. Higgins to Panama Canal Department - assignment of Major Eugene A. Lohman, March Field, as Instructor as Command and General Staff School, Ft. Leavenworth.

PROMOTIONS: to 1st Lieutenant: 2nd Lieuts. George F. Kehoe, rank April 4th; Roy H. Lynn, rank April 5th.

DETAILED TO AIR CORPS: 2nd Lieut. Stephen O. Fuqua, Jr., to Randolph Field, Texas, July 1, 1935, for primary flying training.

1st Lt. Maurice C. Bisson to Hawaiian Dept. upon completion of present course of instruction at Air Corps Technical School.

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TEMPORARY PROMOTIONS

To Lieut.-Col.

Major Shiras A. Blair, Station Complement Commander, Mitchel Field, N.Y., May 2, 1935.

Captain Claude E. Duncan, Executive and Operations Officer, 1st Wing, March Field, Calif., May 2, 1935.

To Captain

1st Lt. Roland O.S. Akre, Adjutant, Station Complement, Mitchel Field, May 2, 1935.

2nd Lt. Eugene H. Beebe, Adjutant, 1st Wing, March Field, Calig., May 2, 1935.

1st Lt. Alva L. Harvey, Flight Commander, 49th Bombardment Squadron, Langley Field, May 2, 1935.

1st Lt. Don W. Mayhue, Intelligence and Communications Officer, 3d Wing, Barksdale Field, La., May 7, 1935.

1st Lt. James S. Stowell, Director, clerical, A.C. Technical School, Chanute Field, May 7, '35.

To 1st Lieut.

2d Lt. David H. Baker, Armament Officer, 78th Pursuit Squadron, Panama.

2d Lt. Hubern P. Dellinger, Chief Inspector, Philippine Air Depot, May 3, 1935.

2d Lt. Aubrey K. Dodson, Supply Officer, 11th Bombardment Squadron, May 11, 1935.

2d Lt. Robert E.L. Eaton, Supply Officer, 1st Bombardment Squadron, Mitchel Field, May 2, 1935

2d Lt. Robin B. Epler, Communications Officer 7th Obs. Squadron, April 25, 1935.

2d Lt. Flint Garrison, Jr., Engineering Officer, 24th Pursuit Squadron.

2d Lt. Robert L. Scott, Jr., Communications Officer, 78th Pursuit Squadron, Panama.

2d Lt. Albert W. Shepherd, Engineering Officer, 74th Pursuit Squadron, Panama.

2d Lt. Norman D. Sillin, Armament Officer, 29th Pursuit Squadron, April 25, 1935.

2d Lt. James D. Underhill, Armament Officer, 7th Observation Squadron, April 25, 1935.

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Captain Ira R. Koenig, assigned as commander of the 1st Balloon Squadron, was advanced to rank of Major, effective May 7, 1935.

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Capts. Melie J. Coutlee, Bernard A. Bridget, 1st Lts. George F. Hartman, Millard C. Young and Daniel F. Callahan, Jr., are relieved from temporary rank on date of departure from Panama.

CATERPILLAR CLUB PASSES 700 MARK

The Caterpillar Club, mythical in character insofar as its status as a bona fide organization is concerned, is continually adding new members to its fold and, so far as it has been possible to ascertain, there are at this writing 705 names on its roster - 697 men and 8 women - who were saved by the parachute.

The number of emergency parachute jumps totals 738, since thus far 28 men made two emergency jumps each; one, Major Frank O'D. Hunter, Air Corps, three; and one, Colonel Charles A. Lindbergh, the High Potentate of the Order of Caterpillars, four jumps.

There are listed below the names of those who made emergency jumps since January 1,1934. The accuracy of this roster is not vouched for, since it is well nigh impossible to keep an accurate check on emergency jumps made by civilian flyers. For example, only just recently, attention was invited to the case of Miss Babe Smith, who on July 17, 1932, almost three years ago, became eligible for initiation into the Caterpillar Club as the outcome of a practice parachute jump. The shrouds of the pilot chute hooked over her foot when she "bailed" out at 2,000 feet, effectually preventing the opening of the main chute. Her strenuous efforts to shake the shroud lines free proved without avail, and finally, at 200 feet, she opened her emergency parachute and landed without injury.

Some may question the propriety of admitting to membership in the Caterpillar Club airmen or airwomen who made parachute jumps under such or similar circumstances, since there was no aircraft failure during flight.

Early in the history of the Caterpillar Club, when names were eagerly sought of those who were saved by the parachute to justify the existence of this mythical society, two men were admitted to membership who made practice jumps and found it necessary to use their emergency parachute in order to effect a safe landing. It was then contended that the main consideration involved in eligibility for membership was the fact that the parachute was instrumental in saving the life of the jumper in the extreme emergency, and this policy was since adhered to in similar cases which followed - and there were quite a number of them.

ROSTER OF CATERPILLAR CLUB, JANUARY 1, 1934 TO MAY 1, 1935

No.	Date 1934	Name	Rank	Place of Jump
617	January 5	George Yeschke	Civilian	Pittsburgh, Pa.
618	January 7	Edward W. Anderson	2nd Lieut. Air Corps	Imperial, Pa.
619	January 7	J. F. Gauterbine	Civilian	Vancouver, Washington.
620	January 23	Beirne S. Lay, Jr.	2nd Lieut. Air Reserve	Langley Field, Va.
621	January 23	Marlin Eddy	Staff Sgt. Air Corps	Langley Field, Va.
622	January 23	Levin T. Miller	Corporal, Air Corps	Langley Field, Va.
623	January 26	Stanton R. Armistead	Civilian	Montgomery, Ala.
624	February 2	Donald W. Eisenhart	Flying Cadet, Air Corps	Near Kelly Field, Texas.
625	February 13	Demas T. Craw	1st Lieut. Air Corps	Wheeler Field, Hawaii
626	February 13	Royden E. Beebe	2nd Lieut. Air Corps	Wheeler Field, Hawaii
627	February 13	Charles H. Anderson	2nd Lieut. Air Corps	Selfridge Field, Mich.
628	February 16	A. G. Gaden	Lieut. (JG) U.S. Navy	Near Pearl Harbor, T.H.
629	February 16	S. D. Kamrar	A.C.M.M., U.S. Navy	Near Pearl Harbor, T.H.
630	February 16	C. P. May	A.C.M.M., U.S. Navy	Near Pearl Harbor, T.H.
631	February 16	W. L. Gruber	Aerog. 1st Cl. U.S.Navy	Near Pearl Harbor, T.H.
632	February 16	L. A. Bowen	A.M.M., 3d Class, U.S.N.	Near Pearl Harbor, T.H.
633	February 16	T. P. Goley	A.M.M., 1st Cl., U.S.N.	Near Pearl Harbor, T.H.
634	February 17	Ray Martinez	Civilian	San Mateo, Calif.
635	February 18	John H. Gibson	2d Lieut. Air Reserve	Mansfield, Ohio.
561	February 23	Norman R. Burnett**	2d Lieut. Air Corps	Freemont, Ohio.
636	March 9	D. L. Noyes	Civilian	Near Fredericksburg, Va.
637	March 16	Paul D. Bunker	2nd Lieut. Air Corps	Near Edgard, La.
638	March 20	Victor L. Anderson	Flying Cadet, Air Corps	Near Kelly Field, Texas.
639	March 30	W. L. Corliss	Ensign, U.S. Navy	San Diego, Calif.
640	April 3	N. H. Crumley	2nd Lieut. Air Reserve	Winfield, Pa.
641	April 3	D. H. Baxter	2nd Lieut. Air Corps	Winfield, Pa.
642	April 3	W. G. LeTarte	Private, Air Corps	Winfield, Pa.
643	April 18	Carlos L. Reavis	Civilian	Denver, Colorado.
644	April 21	Francis R. Drake	Flying Cadet, Air Corps	Near Laredo, Texas.
645	April 23	J. C. Pennington	Flying Cadet, Air Corps	Bracken, Texas.
646	April 26	George A. Hatton	Ensign, U.S. Navy	Pensacola, Fla.
647	April 28	Hugh Herndon, Jr.	Civilian	Palmetto, Georgia
648	April 28	Ed. Sherman	Civilian	Palmetto, Georgia
649	April 30	Albert R. Jackson	Civilian	Little Falls, Minn.
650	May 4	James O. Foster	Civilian	Birmingham, Ala.
651	May 5	David P. Levy	Civilian	Wichita, Kansas.

No.	Date 1934		Name	Rank	Place of Jump
652	May	7	Gilmore V. Minnis	Flying Cadet, Air Corps	Near Kelly Field, Texas
653	May	9	Edwin A. Warren	2nd Lieut. Air Reserve	Selfridge Field, Mich.
654	May	9	Joe Gonzales	Staff Sgt. Air Corps	Davison, Mich.
655	May	15	J. Stanley Holtoner	Flying Cadet, Air Corps	Near Kelly Field, Texas
656	May	16	William M. Marks, Jr.	Flying Cadet, Air Corps	Castroville, Texas
443	May	28	Neal E. Ausman **	2nd Lieut. Air Corps	Chorrera, Panama
657	May	30	Nels O. Sondergard	Civilian	Lake Zurich, Ill.
658	May	31	Frederick W. Soule	Civilian	New Haven, Conn.
659	June	10	Jack A. Becke	Civilian	Dallas, Texas
660	June	12	Ely M. Kinney	Civilian	Schenectady, N.Y.
371	June	14	Paul Hovgard **	Civilian	Lancaster, N.Y.
661	June	24	Herbert H. Mills	Capt. Conn. Nat'l Guard	Rutland, Vermont
662	July	9	David B. Young	Lieut. U.S. Navy	Winter Harbor Shoals, Maine
663	July	9	J. W. Murray	P.M., 2d Class, U.S.Navy	Winter Harbor Shoals, Maine
664	July	13	Frank G. Irvin	1st Lieut. Air Corps	Wright Field, Ohio
56	July	24	Bernard A. Bridget **	1st Lieut. Air Corps	France Field, Panama
665	July	29	Orvil A. Anderson	Captain, Air Corps	Holdrege, Nebraska
666	July	29	William E. Kepner	Major, Air Corps	Holdrege, Nebraska
667	July	29	Albert W. Stevens	Captain, Air Corps	Holdrege, Nebraska
668	August	7	Henry G. Thorne	Private, Air Corps	Atlanta, Texas
669	August	7	Archie J. Old	2nd Lieut. Air Reserve	Atlanta, Texas
670	August	10	Lester R. Williams	2nd Lieut. Air Reserve	Logansport, La.
671	August	20	S. D. Grubbs, Jr.	2nd Lieut. Air Corps	Kelly Field, Texas
672	August	28	W. H. Morris	Flying Cadet, Air Corps	Randolph Field, Texas
673	September	22	James O. Simmons	Flying Cadet, Air Corps	Summerfield, La.
450	September	27	James M. Treweek **	Private, Air Corps	Cumberland, Ohio
674	October	2	Fay W. Olmstead	Flying Cadet, Air Corps	Dead Man's Gulch, Calif.
675	October	2	Edward J. Hale	2nd Lieut. Air Corps	Near Kelly Field, Texas
676	October	3	W. G. Mullins	Lieut. U.S. Navy	Near Guantanamo, Cuba
677	October	4	Warren R. Carter	Captain, Air Corps	Browns, Alabama
678	October	9	Thomas J. Gaughen, Jr.	2nd Lieut. Air Reserve	Waldenburg, Mich.
679	October	18	Arthur Prestridge	Private, Air Corps	Redwater, Texas
680	October	18	Leroy A. Rainey	2nd Lieut. Air Reserve	Redwater, Texas
681	October	31	William D. Eckert	2nd Lieut. Air Corps	Fox Hill, Va.
682	November	5	Rodney E. Jones	Flying Cadet, Air Corps	Fort Eustis, Va.
683	November	6	Earle G. Harper	Captain, Air Corps	Bismarck, Ill.
684	November	6	Frank F. Berfield	Private, Air Corps	Bismarck, Ill.
685	November	6	Joseph E. Daley, P	Private, Air Corps	Bismarck, Ill.
686	November	6	William E. Browning	Civilian Observer, A.C.	Bismarck, Ill.
687	November	8	Julius T. Flock	1st Lieut. Air Corps	Fowlerton, Texas
232	November	8	Stevens G. Bancroft **	Ensign, U.S.Naval Reserve	Everglades, near Miami, Fla.
688	November	24	C. L. Smith	1st Lt.Minn.Nat'l Guard	Diamond Bluff, Wis.
260	November	28	Robert G. Chew **	Air Mail Pilot	Scottsboro, Alabama
689	December	12	Anthony G. Eubanks	Flying Cadet, Air Corps	Near Boerne, Texas
690	December	12	G. S. Buchanan	Flying Cadet, Air Corps	Brooks Field, Texas
691	December	14	F. L. Anderson	2nd Lieut. Air Corps	Pacific Ocean (San Francisco)
692	December	14	D. R. MacVean	Sergeant, Air Corps	Pacific Ocean (San Francisco)
	1935				
693	January	11	Charles W. Wellman	Corporal, Air Corps	Brooksville, Indiana
694	January	19	F. R. Cook	Flying Cadet	Cortoro, Arizona
695	March	5	Clarence D. Fields	Staff Sgt. Air Corps	Pescado River, Panama
696	March	6	John H. Price	Sergeant, Air Corps	Near Centerville, Texas
697	March	16	A. R. Radford	Lt.-Comdr. U.S. Navy	Near Woodville, Texas
698	April	4	John F. Guilmartin	Flying Cadet, Air Corps	Colton, Calif.
699	April	5	Daniel S. Campbell	2nd Lieut. Air Corps	Pearl City, Hawaii
700	April	8	A. B. Thompson	Lieut. (JG) U.S. Navy	Ramona, Calif.
701	April	8	J. Hulme	Lieut. (JG) U.S. Navy	Ramona, Calif.
702	April	8	H. G. Holden	Seaman,1st Cl. U.S.Navy	Ramona, Calif.
703	April	15	William C. McDonald	Sergeant, Air Corps	Ashland, Ky.
704	April	17	John W. Green	Civilian	Boston, Mass.
705	April	17	John B. Ackerman	2nd Lieut. Air Corps	Kelly Field, Texas.
				Addenda	
	1932				
491a	July	17	Babe Smith	Civilian	Akron, Ohio.

NOTE: ** Second emergency parachute jump.

It is interesting to note that among the emergency parachute jumps recently made, the one by Sergeant John H. Price, on duty at the San Antonio Air Depot, not only constituted his first jump but also his first accident. A skilled pilot of several years' experience with practically all types of Army planes as well as with commercial craft, he had a total of 6864 pilot hours to his credit, including 436 hours on transport planes.

Sgt. Price was returning to San Antonio Air Depot from Barksdale Field, La., in a Bellanca transport plane with two engines as cargo. There were no passengers. While flying over the heavily wooded country of East Texas, and after passing under a small line squall near Grapeland, Texas, and crossing the Trinity River at about 100 feet, he was regaining the necessary flying altitude for that region and had reached some 500 feet, when the motor cut out. He attempted to bring the plane down but, finding this impossible, with its rapid loss of altitude, was forced to jump, after some exceedingly strenuous and hair-raising efforts in getting clear of the craft, at a height estimated by him, and also said to have been estimated by witnesses, of about 100 feet. He landed somewhat on his left side, sustaining sundry bruises, lacerations and a sprained ankle. The fact that he landed in soft, loose sandy soil no doubt saved him from more serious injuries.

The pilot had the unusual experience of landing first with his parachute before the plane itself came down. He said everything happened so fast that he didn't have time to experience any particular emotion or sensation except that of terrific speed, but immediately on landing looked toward the falling plane and thought what a pity it was that such a splendid ship was going to crash.

Forced to "bail out" of a Pursuit plane while flying over unfavorable terrain when the engine failed to take on switching over to the main tank, Flying Cadet F.R. Cook stated that he was impressed by the authority of the chute as it opened, he being only 200 feet above the ground. He was knocked unconscious on landing, had no recollection of the manner in which he hit, and after he came to "suffered from a bad case of jitters for a while." Immediately on coming to he could not remember having jumped at all.

During the course of acrobatic flying in Hawaii, the plane piloted by 2nd Lieut. Donald S. Campbell went into an outside spin from the top of a loop. His efforts to regain normal flight proved in vain, as the plane would not answer to the controls either with the throttle open or closed. Unbuckling his safety belt, he was immediately thrown clear of the plane. He stated he had no doubt that the parachute would function, but nevertheless had a feeling of satisfaction when he felt the jerk of the opened parachute. The chances are good that all the 705 Caterpillars felt the same way when they went through their initiation into the Club.

Second Lieut. John B. Ackerman, student at the Advanced Flying School, Kelly Field, returning from a night flight, was forced to make a parachute jump, 13 miles southwest of San Antonio, when motor trouble developed. He released a flare as he made preparations to jump, whereupon the motor cut back in. Several moments later the engine cut out again, and when he released another flare the engine immediately cut in once more. After climbing from 2500 feet to 3,000 feet, the engine cut out for the third time - in earnest. The gasoline gauge indicated that he had almost 30 gallons of fuel, but switching from auxiliary to main tank several times brought no results. By that time he was at an altitude of 1500 feet and he could see that he would be unable to make the field. After he jumped he stated he experienced no sense of falling. The jerk caused by the opening of the parachute caused him to lose both the ripcord and the flashlight he was holding. He landed in a small bush which checked the force of his fall.

Sergeant William C. McDonald, a member of the famous acrobatic team, termed "The Men on the Flying Trapeze," was initiated into the Caterpillar Club near Ashland, Ky., while flying in an airplane which the U.S. Marine Corps had assigned to the Air Corps Tactical School at Maxwell Field. Fate decreed that the engine should cut out while Sgt. McDonald was flying over terrain where a forced landing would be decidedly unhealthy. He had no recourse other than to resort to his parachute, and dived headfirst from the left side of the cockpit at an altitude of about 500 feet. Clear of the plane, he yanked the rip cord. "The fact that the chute had opened," Sgt. McDonald stated, "was a very pleasant realization." Upon touching terra firma, he was immediately whisked off his feet and the chute proceeded to drag him along the ground until he was able successfully to tackle a cement mail box post.

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CHANGES IN ASSIGNMENT OF OFFICERS CARRYING TEMPORARY INCREASED RANK.

Captain Edward H. Underhill from Engineer Officer, 81st Service Squadron, to duty as Intelligence and Operations Officer, 40th Attack Sq.

Capt. Otto P. Weyland, from Secretary, A.C. Advanced Flying School, to duty as Intelligence and Operations Officer, 9th Observation Sqdn.

Capt. James B. Burwell from duty as Intelligence and Operations Officer, 39th Obs. Sqdn., to duty as Secretary, A.C. Advanced Flying School.

Capt. John T. Sprague from 49th Bombardment Sqdn. to Flight Commander, 20th Bomb. Sqdn., Langley Field, Va.

Capt. Robert H. Kelly from 12th Obs. Sqdn., Brooks Field, to duty as Intelligence and Operations Officer, 88th Obs. Squadron.

Capt. Harold M. McClelland assigned as C.O., 19th Bomb. Group, effective April 20, 1935.

FLYING BLIND IN A DUST STORM

Flying blind over mountains at 20,000 feet in a dust storm, in complete darkness, with static playing pranks with radio beacon signals and his fuel supply running low, Private V.V. Poupitch, Air Corps enlisted pilot, stationed at Brooks Field, Texas, refused to desert his ship and succeeded in landing without injury to himself and passenger in the mountains in Chihuahua, Mexico, by spiralling around the line of sparks of two flares, one of which he released at about 17,000 feet and the other at about 9,000 feet, the dust preventing the flares burning at their usual intensity.

Private Poupitch, accompanied by Corp. M.L. Smith, left Brooks Field on an approved airways cross-country flight to Fort Worth, Tex.; Oklahoma City, Okla.; Amarillo, Texas; Albuquerque, N.M.; Winslow, Kingman, Aztec and Tucson, Arizona; El Paso and Midland, Texas, and return to Brooks Field. He reached Tucson the same day and left the following afternoon at 4:20 p.m., for El Paso, setting the compass course to 90 degrees to allow for a very strong north wind. The next check point before darkness was about 20 miles east of Rodeo, Ariz., at about 5:20 p.m. Flying then at 10,000 feet, darkness and a dust storm enveloped him.

"When I left Tucson," Private Poupitch stated, "I had four hours' fuel. As the journey from Tucson to El Paso was only a two-hour flight with an O-43, I had two hours' fuel as a safe margin. In view of former weather training and receiving suitable weather reports by radio at El Paso, having sufficient fuel and receiving the oncourse signal, and fully equipped for night flying, I saw no need to turn back to Tucson or to try and land at the first available place. As I approached El Paso, the weather reports by radio changed from four miles' visibility to two miles' visibility, and extreme static which at times completely cut out the El Paso radio beacon. This I later found out to be caused by local atmospheric conditions and charged dust.

After nearly two hours had elapsed from the time of take-off at Tucson, I estimated that my position was near El Paso, and began to concentrate on the cone of silence. I began to receive a slightly off-course signal, and turned to correct for it, climbing at the same time to avoid hitting any mountains, and also to have a better working area with the cone of silence, in view of the flying conditions.

At 20,000 feet I was also blind and began to fly by instruments at 6:00 p.m. The off-course signal began to predominate; and it took some time before I hit the oncourse signal again. But then the signal began to weaken, and after a reasonable length of time, I was sure that I was going away from the station; so I turned 180° and started back. I received the oncourse signal again; the volume increased, even though I turned it down on the receiver, indicating that I was going toward my station. When I began to turn down the volume, the static increased. I had been receiving static on the receiver and upon turning down the volume, this static increased to the extent that it prevented my hearing the radio beacon. Even though I maintained my course in both directions, I could not find the cone of silence. Then I began to fly the other legs to ascertain if I could hit the cone of silence at an estimated intersection. Judging by time, the same thing began to take place as on the east and west legs: extreme static, interference with radio receipt, all of which prevented me from finding the silence cone. I then began to circle around to where I thought the cone might be, and gradually tightened the circle, but failed to find it. I began to check my beacon map again to orient myself in the quadrants when I could receive the signal; and when I looked up, I had unconsciously stalled the ship and was in a spin. I recovered at 17,000 feet and saw my fuel gauge read slightly above zero, and that the artificial horizon was out of sight.

I conveyed to the mechanic, Corp. M.L. Smith, that I had no idea as to where we were, but that we had 17,000 feet which was sufficient to safely avoid possible mountains in the event that a parachute jump became necessary. When I looked back at Corp. Smith, he already had the rear cockpit open, and one foot over the side of the ship. He inquired as to whether I was going to jump, and upon my reply that I was not, but was going to make an effort to save the ship, he climbed back into the ship and, despite my advice to jump, he stated he would stay with me regardless of consequences.

I dropped a flare and it showed very little on account of the dust, but exhibited merely a blaze of light in the immediate vicinity of the flare. I was hoping that it would reveal any possible mountain range or peak below us. The Sperry horizon failed to function after the spin, and when I saw the flare burning, it emitted a stream of sparks which formed a vertical line and I could then establish a horizon. It indicated to me that so long as the sparks were descending vertically I had that much altitude and that no intervening obstructions existed below.

I spiralled tightly around this stream of sparks to avoid any other obstacles, mountains, etc., which I would be unable to detect on account of the visibility, and quickly lost my altitude. When the flare burned out, I released a second flare at about 9,000 feet, when I again succeeded in establishing a horizon by the line of sparks, and again descended rapidly.

I had both of the landing lights on when I suddenly approached the ground and estimated that I was about 100 feet above it, in a dive and a speed bank. The motor began to sputter when I leveled off and prepared to land in that exact spot. I struck the ground once, wheels first. The flare which had been above us, went out and I bounced. I tried to 'jockey' the ship and ease it down in the darkness, since I was wholly unaware, of course, of what I might strike. I landed and rolled for some distance, when I could feel the ship being stopped rapidly. Suddenly, it nosed over. The tail came right down and Corporal Smith and I climbed out."

V-6787, A.C.